

THE MOUNT

MOUNT SAINT MARY'S UNIVERSITY

2008

ANNUAL WATER QUALITY REPORT

This report is designed to inform you about the fine quality water and services Mount Saint Mary's University delivers to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

The Mount's water system is currently supplied by two (3) deep wells. Well #3 & #6 are located on the east side of campus and Well #5 is on the west campus. Water from Well #3 is pumped approximately one mile to the Water Treatment building and Storage Tank located on the mountainside behind Bradley Hall and adjacent to the Grotto of Lourdes. Upon advance notice, these facilities are available for tours. Call (301) 447-5377.

We are pleased to report that our drinking water is safe and meets federal and state requirements. Those items that were detected during our testing process are detailed later in this report. If you have any questions about this Water Quality Report or our plant operations, please contact Philip Valentine, Director of Physical Plant Operations at (301) 447-5377.

Although Mount Saint Mary's Board of Directors meets on a quarterly basis, the meetings are not open to the public. If you have concerns, questions or suggestions that need the Board's attention, please contact Philip Valentine. Your inquiries will receive prompt attention.

The University's Physical Plant department routinely monitors for constituents in your drinking water according to Federal and State laws. The attached table shows the results of our monitoring for the period of January 1st to December 31st, 2008.



In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects - Laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/L) - One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/L) - One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/L) - One part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

Millirems per year (mrem/yr) - Measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Containment Level - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water the MCL level every day for a lifetime to have a one-in-a-million chance of having the described health effects.

Maximum Contaminant Level Goal - The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.



Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

We constantly monitor the water supply for various constituents. Although we have not detected cryptosporidium in the finished water or source water, we believe it is important for you to know that cryptosporidium can enter the source water and if not properly treated may cause serious illness in immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders. These people should seek advice from their health care providers.

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

All drinking water, including bottled water, may reasonable be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency Safe Drinking Water Hotline at (1-800-426-4791).

Special explanations regarding some common contaminants include:

Total Coliform: The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, we must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

Nitrates: Nitrate in drinking water at levels above 10 ppm is a health risk for infants or less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agriculture activity. If you are caring for an infant you should ask advice from your health care provider.

As a standard precaution we would always notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply.



Lead: Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified, replaced or reduced.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Mount St. Mary's is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplant, people with HIV/AIDS or other immune systems disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advise about drinking water from their health care providers.

EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

The items detected during 2008 are listed on the following pages.

Attachments 3



CONSUMER FACT SHEET: PROPOSED RADON IN DRINKING WATER RULE

Background

The 1996 Safe Drinking Water Act Amendments required EPA to establish several new, health-based drinking water regulations. The first of these, announced by President Clinton in December, 1998, set requirements for microbial and disinfection byproducts. The multimedia proposal for radon will be the second of these health-based drinking water regulations.

Breathing radon in the indoor air of homes is the primary public health risk from radon, contributing to about 20,000 lung cancer deaths each year in the United States, according to a landmark report this year by the National Academy of Sciences (NAS) on radon in indoor air. Radon is the second leading cause of lung cancer in the United States. Based on a second NAS report on radon in drinking water, EPA estimates that radon in drinking water causes about 168 cancer deaths per year, 89 percent from lung cancer caused by breathing radon released from water, and 11 percent from stomach cancer caused by drinking radon-containing water.

Proposed Regulations

- EPA is proposing new regulations to reduce the public health risks from radon.
- The proposed standards would apply only to community water systems that regularly serve 25 or more people and that use ground water or mixed ground and surface water (e.g., systems serving homes, apartments, and trailer parks). They would not apply to systems that rely on surface water where radon levels in the water are very low. They also would not apply to private wells, because EPA does not regulate them.
- The proposal will provide states flexibility in how to limit exposure to radon by allowing them to focus their efforts on the greatest radon risks - those in indoor air - while also reducing the risks from radon in drinking water.
- The unique multimedia framework for this proposed regulation is outlined in the Safe Drinking Water Act, as amended in 1996.
 - >First Option: States can choose to develop enhanced state programs to address the health risks from radon in indoor air -- known as Multimedia Mitigation (MMM) programs -- while individual water systems reduce radon levels in drinking water to 4,000 pCi/L (picoCuries per liter, a standard unit of radiation). EPA is encouraging States to adopt this option because it is the most cost-effective way to achieve the greatest radon risk reduction.



- >**Second Option:** If a state chooses not to develop an MMM program, individual water systems in that state would be required to either reduce radon in their system's drinking water to 3,000 pCi/L or develop individual local MMM programs and reduce levels in drinking water to 4000 pCi/L. Water systems already at or below the 3,000 pCi/L standard will not be required to treat their water for radon.
- The proposed regulation identified four criteria that MMM program plans would be required to meet to be approved by EPA:
 - >Public involvement in the development of the MMM plan;
 - >Quantitative goals for reducing radon in existing and new homes;
 - >Strategies for achieving these quantitative goals; and
 - >A plan for tracking and reporting results.
 - EPA sought extensive input from the states, water systems, environmental groups, and the general public in a series of public meetings over the past two years to design the proposed approach.
 - EPA is soliciting formal comment by publishing the proposed regulation in the *Federal Register* for a 60 day review and comment period. Comments must be received 60 days after publication of the notice. For specific instructions, see the *Federal Register* notice's "Addresses" section. A copy of the *Federal Register* notice of the proposed regulation can be obtained by contacting the Safe Drinking Water Hotline at (800) 426-4791. It is also posted on EPA's drinking water web site at <http://www.epa.gov/safewater>.

For More Information

For general information on radon in drinking water, visit EPA's radon in drinking water web site at <http://www.epa.gov/safewater/radon.html> or contact the Safe Drinking Water Hotline, at (800) 426-4791. The Safe Drinking Water Hotline is open Monday through Friday, excluding Federal holidays, from 9:00 a.m. to 5:30 p.m. Eastern Time. For more information on radon in indoor air, contact the National Safety Council's Environmental Health Center hotline at (800) SOS-RADON. Or, visit EPA's radon indoor air web site at <http://www.epa.gov/iaq/radon> for more information.

The following documents and fact sheets will be available to the public, through EPA's web site on radon in drinking water or by contacting the Safe Drinking Water Hotline:

- *Federal Register* notice of the proposed radon regulations
- Technical Fact Sheet on Proposed Radon in Drinking Water Rule (EPA 815-F-99-006).
- Consumer Fact Sheet on Radon in Drinking Water: Questions and Answers (EPA-815-F-99-007).

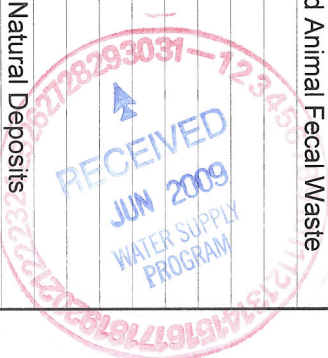


WELL #6 TEST RESULTS 2008

Attachment 2

Page 1

CONTAMINANT	VIOLATION Y/N	LEVEL DETECTED	UNIT MEASUREMENT	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
MICROBIOLOGICAL CONTAMINANTS						
Total Coliform and Bacteria	N	0	CFU		0 Presence of Coliform Bacteria in 5% of Monthly Samples	Naturally Present in the Environment
Fecal Coliform	N	0	CFU		0 A Routine Sample & Repeat Sample are Total Coliform Positive & (1) is also Fecal Coliform or E-Coli Positive	Human and Animal Fecal Waste
RADIOACTIVE CONTAMINANTS						
Gross Alpha	N	15.0pCi/L	pCi/L	0	15	Erosion of Natural Deposits
Combined Uranium	N	8.0 pCi/L	pCi/L	N/A		Erosion of Natural Deposits
Gross Beta	N	6.0 pCi/L	pCi/L	N/A	50	Erosion of Natural Deposits
INORGANIC CONTAMINANTS						
Nitrate	N	1.5 mg/L	ppm	10	10	Runoff from Fertilizer Use, Leaching from Septic Tanks, Sewage
Arsenic	N	.004 mg/L	ppm	1	1	Erosion of Natural Deposits Runoff from Orchards
Barium	N	0.33mg/L	ppm	2	2	Discharge of Drilling Wastes: Discharge from Metal Refineries Erosion of Natural Deposits



WELL #6 TEST RESULTS 2008

Attachment 2

Page 2

SYNTHETIC ORGANIC CONTAMINANTS

Contaminant	Concentration	Unit	Source
Di(2-Ethylhexyl) Phthalate	1.1	ug/L	Runoff from Herbicide

ORGANIC CHEMICAL CONTAMINANTS

Contaminant	Concentration	Unit	Source
Total Trihalomethanes (TTHMS) (PPB)	0.6	ug/L	By-Product of Drinking Water Chlorination

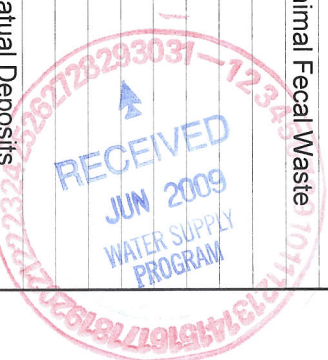


WELL #3 & #5 TEST RESULTS 2008

Attachment 3

Page 1

CONTAMINANT	VIOLATION Y/N	LEVEL DETECTED	UNIT MEASUREMENT	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
MICROBIOLOGICAL CONTAMINANTS						
Total Coliform	N	0	CFU	0	Presense of Coliform Bacteria in 5% of Monthly Samples	Naturally Present in Environment
Fecal Coliform	N	0	CFU	0	A Routine Sample & Repeat Sample are Total Coliform Positive & One is also Fecal Coliform or E-Coli Positive	Human & Animal Fecal Waste
RADIOACTIVE CONTAMINANTS						
Gross Alpha	N	11.6pCi/L	pCi/L	0	15	Erosion of Natural Deposits
Combined Radium	N	2.5pCi/L	pCi/L	0	5	Erosion of Natural Deposits
Combined Uranium	N	10.7 pCi/L	pCi/L	N/A	30	Erosion of Natural Deposits
Gross Beta	N	8.0pCi/L	pCi/L	N/A	50	Erosion of Natural Deposits
INORGANIC CONTAMINANTS						
Nitrate	N	1.5mg/L	ppm	10	10	Runoff from Fertilizer Use, Leaching from Septic Tanks, Sewage, Erosion of Natural Deposits
Lead Distribution	N	.009 mg/L	ppm	N/A	15	Corrosion of household plumbing Erosion of Natural Deposits



WELL #3 & #5 TEST RESULTS 2008

Attachment 3

Page 2

Copper Distribution	N	0.29 mg/L	ppm	N/A	1.3 Corrosion of household plumbing Erosion of Natural Deposits Leaching from wood preservatives
Arsenic	N	.004mg/L	ppm	N/A	50 Erosion of Natural Deposits, runoff from Orchards, runoff from Electronic & Glass Production Waste
Barium	N	.34mg/L	ppm	2	2 Discharged Drilling Wastes & Erosion of Natural Deposits
SYNTHETIC ORGANIC CONTAMINANTS					
Di(2-Ethylhexyl) Phthalate	N	.7ug/L	ppb	0	6 Runoff from Herbicide
ORGANIC CHEMICAL CONTAMINANTS					
Total	N	1.05ug/L	ppb	N/A	100 By-Product of Drinking Water Chlorination
Trihalomethanes (TTHMS)(PPB)					

